

## ABSTRACT OF THE DISCLOSURE

An electrical insulator comprises an elongate shank and one or more sheds disposed along the length of the shank. The surface of the insulator comprises longitudinally extending flutes, the depth of which are varied along the length of the insulator such that the circumferential distance of all transverse sections along the length of the insulator is substantially constant or controlled. Instead of flutes, the surface may be formed with an array of protuberances and/or concavities. The insulator thus provides a defined perimeter and surface area along its length, such that areas of the surface are not preferentially heated by surface currents to form dry bands and thereby cause arcing. Such topography also renders the insulator less susceptible to the degrading effects of surface pollution.